

## 1. Introduction

- This document covers the FW Advanced Pilot Competency test.
- Safety is the highest priority. The objective of all competency related matters is to achieve the highest levels of safety and performance.
- This test performed by a pilot of higher competency level, all paid up RCASA members on good standing.
- The pilot is allowed to land for battery replacement or refuelling.
- The pilot can use the craft of his choice within the applicable class.
- Only 1 flight required, landing for refuelling or battery replacement allowed.
- Any action that is seen as a breach of safety in any way, will result in a complete NYC of this test.

## 2. Expected outcome

The pilot must show competency in the following:

### a. Oral questions

#### **100% Competent is expected on the following questions**

- i. Which Organisation controls RSA airspace? (CAA)
- ii. What is the maximum weight allowed for a fixed wing craft? (35kg)
- iii. What is the maximum weight allowed for a rotary wing craft? (6.5kg)
- iv. What is the maximum noise level allowed? (96 dBA at 3m)
- v. What must you do in case any Full-Size craft approaches the field? (Opposite direction, lower and land)
- vi. Where can you find the fly and no-fly zones at the RCASA venue? (Club Notice Boards, Safety Officer on duty)
- vii. What is most important when starting up? (Start in designated area, taking care of prop wash/blast. Ensure no-one in front or behind aircraft)
- viii. What must you do before take-off and landing? (Shout out! "TAKE OFF or LANDING")
- ix. What must you do in the case of Dead stick or any unwanted response or problems? (Shout out! "DEAD STICK" and step forward)
- x. What should be done if you Aircraft or Helicopter develops a servo failure during Flight? (If possible, steer craft away from No-fly Zones and declare you have an Issues, Ask instructor for assistance)
- xi. What is good practice to do before take-off? (Double check controls are working in correct direction and check wind direction. Shout Take Off)
- xii. If flying at a different venue, what must the PIC do before flying? (Check to see if local Safety officer/Instructor is present and ask what the rules of the RCASA venue are)

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- xiii. If more than one AC or Heli are flying, is it necessary to know the circuit direction before flying? (Yes)
  - xiv. Briefly explain the aerodynamics of your craft and the working of all controlled parts.

**b. Pre-flight checks**

**100% Competent is expected on the following questions**

Ask the pilot to perform a complete pre-flight check and look for the following:

- i. Check all is fastened, engine and movable parts, complete check
- ii. Check all battery levels, craft, radio, all.
- iii. Ensure it is safe and correct switch on sequence, radio first then craft.
- iv. Perform radio check and check all radio inputs produce the desirable reactions on the craft, ie Rudder direction, etc.
- v. Ask the pilot to show his Dual Rates/Expo settings on his transmitter.
- vi. Ask the pilot to show and prove “fail safe” is setup and working correct per setup.
- vii. Start/test the engine. Observe if pilot ensure it is safe in front and behind him and is craft, start at the designated area if applicable.

**c. Flight test**

**70% Competent results are expected on the following manoeuvres**

- The pilot must be always in control during handling, starting, and flying of his craft.
- The pilot must never fly over the people present or “wrong side or close side” of the runway.
  - i. Show competency in take-off and landing without running off the runway.
  - ii. Fly a horizontal figure 8 as 2 intersecting circles, testing his capability on up and down wind throttle control to achieve a symmetric figure eight, crossing at the same place whilst maintaining height.
  - iii. Fly an inverted up-wind horizontal figure 8 as 2 intersecting circles, testing his capability on up and down wind throttle control to achieve a symmetric figure eight, crossing at the same place whilst maintaining height.
  - iv. Fly inverted for at least 5 seconds whilst maintaining height and direction.
  - v. Cut the throttle to idle at any time and perform a controlled approach at idle when he is asked to do so.
  - vi. Fly two opposite direction lines, 150m away, maintaining the same height, direction, and distance in both directions.
  - vii. Fly a Half Reverse Cuban 8 at 150m distance, show good throttle control, symmetric with control always and maintain distance
  - viii. Perform 2 inside loops as a circle starting from low to high, ending in the start position.
  - ix. Perform 1 outside loop, ending in the start position.

- x. Perform 1 axial roll in the centre.
- xi. Be able to approach from all 4 directions, without landing but maintaining low speed and altitude whilst flying over the length of the runway.
- xii. Land against the wind, the test is completed

### **3. Additional Notes**

- Do a de-briefing pointing out all positive and negative aspects from the test and results.
- Discuss any findings in a positive manner.
- All tests to be logged on the RCASA portal, C and NYC for good record keeping.